



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/711,655

09/29/2004

DU CAO

5654

38788

7590

06/15/2006

DU CAO

3232 NORTHWAY AVE  
WINDSON, ON N9E 4T  
CANADA

EXAMINER

HUNNINGS, TRAVIS R

ART UNIT

PAPER NUMBER

2612

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/711,655

Applicant(s)

CAO ET AL.

Examiner

Travis R. Hunnings

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                     | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because they are not labeled with the correct figure numbers (ie Fig. 1, Fig. 2, etc.). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 2612

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-8 rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited.

4. Regarding claim 2, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

5. Regarding claim 3, the phrase "a few" renders the claim(s) indefinite because one of ordinary skill in the art would not know exactly how many "a few" refers to, thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2612

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 4, 5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Thompson (US Patent 4,868,542).

Regarding claim 1, Thompson discloses *Automotive Brake Light And Communication System* that has the following claimed limitations:

The claimed remote control with a small keypad is met by the keypad as seen in figures 1 and 3;

The claimed display panel box is met by the display as seen in figure 5;

The claimed two signal intents, either to program a new message or to display a programmed message is met by the processor displaying the message on the display; that message being able to be removed, recalled (a previously stored message) or maintained according to the operator (column 1, lines 21-58).

Regarding claim 2, the claimed multiple choices for a message display being supplied is met by the operator being able to input any message desired (column 1, lines 21-58).

Regarding claim 4, the claimed method being embodied in original vehicle manufacturing or in an aftermarket product is met by the product being installed in a

Art Unit: 2612

vehicle as shown in figure 3. It would inherently have to be installed either in original vehicle manufacture or as an aftermarket product.

Regarding claim 5, the claimed power used for both remote control and the electronic LED display being either battery or power outlet supplied in a vehicle is met by the battery powering the equipment as shown in figure 4.

Regarding claim 7, the claimed display being made of LED or any other light-emitting elements is met by the display being an LED display (column 2, lines 27-33).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson in view of Hose (US Patent 4,361,828).

Regarding claim 3, Thompson discloses all of the claimed limitations except for the claimed LED lighting number on the backside. The examiner interprets this to mean the buttons on the keypad are illuminated to show which stored message is currently

Art Unit: 2612

being displayed. Hose discloses *Automotive Communication* that teaches a vehicle display board and a keypad with programmed messages assigned to particular keys and when a particular key is selected the key is illuminated (column 3, lines 32-35). Modifying the keypad of Thompson to include illuminated buttons would allow the user to quickly glance at the keypad and be reminded of which button and therefore which message is currently being displayed on the screen. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Thompson according to the teachings of Hose to illuminate the buttons when pressed to display stored messages.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson in view of Smith et al. (Smith; US Patent 6,195,000).

Regarding claim 6, Thompson discloses all of the claimed limitations except for the claimed LED display being seated on the dashboard behind the rear window with two pieces of double side foam tape or Velcro or being attached to the rear or side window of an automobile using four small suction cups. Smith discloses *Emergency Auto Visual Communication System* that teaches using suction cups to attach a vehicle display to a rear window as can be seen in figures 1-7. Adding suction cups to the display of Thompson would give the user an additional way to mount the display and provide for more mounting options and therefore make the device more flexible in use. Therefore it would have been obvious to one of ordinary skill in the art at the time of the

Art Unit: 2612

invention to modify the device disclosed by Thompson according to the teachings of Smith to include suction cups. The specific number of suction cups would have been obvious to one of ordinary skill in the art to use as many or as few cups as required by the design.

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson in view of Smith and further in view of Groover (US Patent 5,574,428).

Regarding claim 8, Thompson and Smith disclose all of the claimed limitations except for the claimed light intensity sensor which provided different levels of visual intensity for the display. Groover discloses *Message Display Unit For Motor Vehicles* that teaches using a light sensor to determine the amount of available ambient light (column 6, lines 12-22). Adding a light sensor to Thompson and Smith would allow the device to save power by using less light on the display when it was darker outside and using more light on the display when it was brighter and it would optimize the message being displayed so that it would be easily seen in any light condition. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Thompson and Smith according to the teachings of Groover to include a light sensor which would provide different levels of visual intensity for the display.



**Conclusion**

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bahmad, *Message Conveying System For Motor Vehicles*, US Patent 6,553,285;

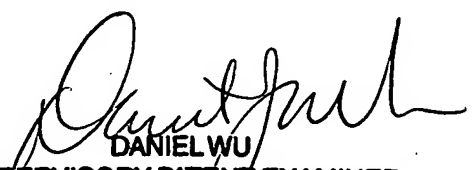
Steffan et al. *Vehicle Communication Device*, US Patent 5,905,434.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis R. Hunnings whose telephone number is (571) 272-3118. The examiner can normally be reached on 8:00 am - 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TRH

  
DANIEL WU  
SUPERVISORY PATENT EXAMINER  
9/12/06